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A LETTER to the Rev. HENRY USSHER, D. D. from
the Rev. JAMES A. HAMILTON, D. D. M.R.I.A.
giving an Account of PARHELIA seen at Cookstown
September 24, 1783.

CARIFF, JANUARY 20, 1786.

DEAR SIR,

I BEG leave, through you, to communicate to the Royal Irish Academy, the following very curious optical phænomena which I observed September 24, 1783, at Cookstown, where I then resided, and paid a pretty regular attention to astronomical and meteorological observations.

Read Fe-
bruary 6,
1786.

WEDNESDAY, September 24th, 1783, as I was preparing to observe the sun passing the meridian, before the 1st limb touched the centre wire, it was obscured by a dark well-defined cloud, about 10° in diameter. Upon going to the door of the transit room, to see if it was likely soon to pass off the disk of the sun, I observed the following phænomena:

FROM

FROM the western edge of the cloud issued a luminous arc parallel to the horizon, perfectly well defined, extending exactly to the northern meridian ; it was about $30'$ broad, white, and ended in a blunted termination. On it were two parhelia ; the nearest to the sun displaying the prismatic colours ; the remote one white, and both ill defined. In a short time the cloud had passed off, and shewed the luminous almicanter, reaching perfect to the true sun. While things were thus situated, I measured with an accurate sextant the distances of the parhelia ; I found the coloured one 26° , the remoter one 90° , from the true sun. Just as I had done this, a new and prismatic circle surrounded the sun, immediately within the prismatic parhelion. And now another coloured parhelion appeared on the eastern board. The sextant with its face up and down, exactly measured this and the former at the original distance of 26° ; the luminous almicanter still remaining perfect. In about ten or twelve minutes, whitish hazy clouds came on, and obscured all these uncommon appearances. I did not observe that the atmospherical phænomena before or after were at all uncommon. The wind a light breeze at S. S. W. Bar. 29,6 rising. Thermometer 55° .

Plate III.
Fig. 1.

S. M. represents the south meridian.

N. M. north meridian.

P. P. the prismatic circle, with two prismatic suns or parhelia, at 26° distance on each side the true sun.

W. the white parhelion, at 90° distance from the true sun.

L. A. the luminous almicanter.

And H O. the horizon.